

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> :		A3	(11) International Publication Number: <b>WO 00/32790</b>
C12N 15/53, 9/02, 5/10, G01N 33/50, C12Q 1/68			(43) International Publication Date: 8 June 2000 (08.06.00)
<p>(21) International Application Number: PCT/US99/28589</p> <p>(22) International Filing Date: 2 December 1999 (02.12.99)</p> <p>(30) Priority Data: 60/110,784 3 December 1998 (03.12.98) US</p> <p>(71) Applicant (for all designated States except US): E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): CAHOON, Edgar, B. [US/US]; 2331 West 18th Street, Wilmington, DE 19806 (US). CAHOON, Rebecca, E. [US/US]; 2331 West 18th Street, Wilmington, DE 19806 (US). HITZ, William, D. [US/US]; 404 Hillside Road, Wilmington, DE 19807 (US). KINNEY, Anthony, J. [GB/US]; 609 Lore Avenue, Wilmington, DE 19809 (US).</p> <p>(74) Agent: FEULNER, Gregory, J.; E.I. Du Pont De Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).</p>		<p>(81) Designated States: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report.</p> <p>(88) Date of publication of the international search report: 16 November 2000 (16.11.00)</p>	
<p>(54) Title: MEMBRANE-BOUND DESATURASES</p> <p>(57) Abstract</p> <p>This invention relates to an isolated nucleic acid fragment encoding a delta-6 desaturase or sphingolipid desaturase. The invention also relates to the construction of a chimeric gene encoding all or a portion of the delta-6 desaturase or sphingolipid desaturase, in sense or antisense orientation, wherein expression of the chimeric gene results in production of altered levels of the delta-6 desaturase or sphingolipid desaturase in a transformed host cell.</p>			